



S/N 09/782,441

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Wing-Cheong Gilbert Lai et al. Examiner: Unknown
Serial No.: 09/782,441 Group Art Unit: 2814
Filed: February 13, 2001 Docket: 303.261US2
Title: SMALL GRAIN SIZE, CONFORMAL ALUMINUM INTERCONNECTS AND
METHOD FOR THEIR FORMATION

SUPPLEMENTAL PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Before taking up the above-identified application for examination, please enter the following amendments.

IN THE CLAIMS

Please add the following new claims:

37. (New) A method for forming an aluminum film on a semiconductor structure in a chemical vapor deposition reaction chamber, comprising:
- flowing an aluminum-containing precursor in the chemical vapor deposition reaction chamber to form an aluminum film; and
 - flowing at least one gas selected from the group consisting of ammonia and nitrogen trifluoride in the chemical vapor deposition reaction chamber to form the aluminum film wherein the film has a small grain size.
38. (New) The method of claim 37 wherein the aluminum film has a grain size that is less than 0.25 microns.
39. (New) The method of claim 37 wherein the aluminum film grains have a polycrystalline orientation.
40. (New) The method of claim 37, wherein the aluminum-containing precursor is selected from the group consisting of : trimethylaluminum (TMA), dimethylaluminum hydride (DMAH), triisobutylaluminum (TIBA), triethylaluminum (TEA), diethylaluminum hydride (DEAH),